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Letter
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U.S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS,
WASHINGTON

(Revised to May 5, 1937)

CONCRETE AND REINFORCED CONCRETE: TECHNICAL PUBLICATIONS BY MEMBERS OF THE STAFF OF THE NATIONAL BUREAU OF STANDARDS.

This letter circular gives a list of publications on CONCRETE AND REINFORCED CONCRETE by members of the staff of the National Bureau of Standards. Some of these publications were printed in the regular series of the Bureau and others in various scientific, technical and trade association journals.

For ready reference and convenience in ordering the separate papers of the Bureau, these have been listed with the serial letter and number in one column, and the price in the second column. The publications for which prices are indicated may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. The prices quoted are for delivery to addresses in the United States and its possessions, and to Canada, Cuba, Mexico, Newfoundland, the Philippines, and the Republic of Panama. When remitting for delivery to other countries than those, include in your remittance one-third of the total cost of the publications to cover postage. Remittances should be made payable to the Superintendent of Documents, Government Printing Office, Washington, D.C., and sent to him with the order. "O.P." in the column marked "Price" indicates that the publication is out of print, but may be consulted at most large libraries. A complete list of the Bureau's publications (Circular C24 and Supplement) is also generally available at such libraries.

Serial letters are used to designate BUREAU PUBLICATIONS:

T = "Technologic Paper" of the National Bureau of Standards. T1 to T202 were issued each independent of the other with individual pagination. Later they were assembled to make the first 15 volumes of this series, and subsequent separates were given volume pagination (Tech. Pap. BS). This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

RP = "Research Papers." These are reprints of articles appearing in the "Bureau of Standards Journal of Research" (BS J. Research) and the "Journal of Research of the National Bureau of Standards" (J. Research NBS), the latter being the title of this periodical since July 1934 (volume 13, number 1).

C = "Circular" of the National Bureau of Standards.

LC = "Letter Circular" of the National Bureau of Standards.

BH = "Building and Housing Publications" of the National Bureau of Standards.

R = "Simplified Practice Recommendations" of the National Bureau of Standards.

TECHNOLOGIC PAPERS

Series	Price	
T2	O.P.	The strength of reinforced concrete beams, (first series). R.L. Humphrey and L.H. Losse. Tech. Pap. BS, T2, 1, (1910-12).
T3	O.P.	Tests of the absorptive and permeable properties of portland cement mortars and concretes, together with tests of dampproofing and waterproofing compounds and materials. R.J. Wig and P.H. Bates. Tech. Pap. BS, T3, 1, (1910-12).
T5	O.P.	The effect of high-pressure steam on the crushing strength of portland cement and concrete. R.J. Wig. Tech. Pap. BS, T5, 1, (1910-12).
T12	O.P.	Action of the salts in alkali water and sea water on cement. P.H. Bates, A.J. Phillips and R.J. Wig. Tech. Pap. BS, T12, 2, (1912-14).
T18	O.P.	Electrolysis in concrete. E.B. Rosa, B. McCollum and O.S. Peters. Tech. Pap. BS, T18, 2, (1912-14).
T58	O.P.	Strength and other properties of concretes as affected by materials and methods of preparation. R.J. Wig, G.M. Williams and D.R. Gates. Tech. Pap. BS, T58, 6, (1915-16).
T70	O.P.	Durability of stucco and plaster construction. R.J. Wig, J.C. Pearson and W.E. Emley. Tech. Pap. BS, T70, 7, (1916-17).
T173	25¢	Tests of bond resistance between concrete and steel. W.A. Slater, F.E. Richart and G.G. Scofield. Tech. Pap. BS, T173, 14, (1920-21).
T175	5¢	Pouring and pressure tests of concrete. W.A. Slater and A.T. Goldbeck. Tech. Pap. BS, T175, 14, (1920-21).

TECHNOLOGIC PAPERS (Cont'd.)

Series	Price	
T182	15¢	Effect of repeated reversals of stress on double-reinforced concrete beams. W.A. Slater, G.A. Smith and H.P. Mueller. Tech. Pap. BS, T182, 14, (1920-21).
T184	75¢	Fire tests of building columns. S.H. Ingberg, H.K. Griffin, W.C. Robinson and R.E. Wilson. Tech. Pap. BS, T184, 15, (1921).
T220	25¢	Tests of a hollow tile and concrete floor slab reinforced in two directions. W.A. Slater, A. Hagener and G.P. Anthos. Tech. Pap. BS, T220, 16, 727(1921-22).
T233	15¢	Tests of heavily reinforced concrete slab beams. W.A. Slater and F.B. Seely. Tech. Pap. BS, T233, 17, 297(1922-24).
T236	15¢	Loading tests of a hollow tile and reinforced concrete floor of Arlington Building, Washington, D.C. L.J. Larson and S.N. Petrenko. Tech. Pap. BS, T236, 17, 405(1922-24).
T272	25¢	Fire resistance of concrete columns. W.A. Hull and S.H. Ingberg. Tech. Pap. BS, T272, 18, 635(1924-25).
T291	25¢	Tests of hollow tile and concrete slabs reinforced in one direction. D.E. Parsons and A.H. Stang. Tech. Pap. BS, T291, 19, 465(1924-25).
T307	O.P.	Durability of cement drain tile and concrete in alkali soils; fourth progress report (1923). G.M. Williams and I. Furlong. Tech. Pap. BS, T307, 20, 191(1925-26).
T314	50¢	Shear tests of reinforced concrete beams. W.A. Slater, A.R. Lord and R.R. Zipprodt. Tech. Pap. BS, T314, 20, 387(1925-26).

RESEARCH PAPERS

Series	Price	
RP9	25¢	Test of the effect of brackets in reinforced concrete rigid frames. F.E. Richart. BS J. Research 1, 189(1928).

RESEARCH PAPERS (Cont'd.)

Series	Price	
RP181	15¢	Tests of composite beams and slabs of hollow tile and concrete. D.E. Parsons and A.H. Stang. BS J. Research 4, 815(1930).
RP389	5¢	The physical properties of cast stone. J. Tucker, jr G.W. Walker and J.A. Swenson. BS J. Research 7, 1067(1931).
RP394	5¢	Tests of integral and surface waterproofings for concrete. C.H. Jumper. BS J. Research 7, 1147 (1931).
RP486	5¢	Areas and tensile properties of deformed concrete-reinforcement bars. A.H. Stang, R.L. Sweetman and C. Gough. BS J. Research 9, 509(1932).
RP529	5¢	Clay in concrete. D.A. Parsons. BS J. Research 10, 257(1933).
RP609	5¢	Tests on a reinforced-concrete arch of the Arlington Memorial Bridge. C.C. Fishburn and J.L. Nagle. BS J. Research 11, 567(1933).
RP777	5¢	Effect of granulometric composition of cement on the properties of pastes, mortars, and concretes. J. Arthur Swenson, Lacey A. Warner, and George L. Pigman. J. Research NBS 14, 419(1935).
RP782	O.P.	Effect of calcium chloride on portland cements and concretes. Paul Rapp. J. Research NBS 14, 499 (1935).
RP799	5¢	Behavior of high-early-strength cement concretes and mortars under various temperature and humidity conditions. Louis Schuman and Edward A. Pisapia. J. Research NBS 14, 723(1935).
RP873	10¢	Some tests of steel columns incased in concrete. Ambrose H. Stang, Herbert L. Whittemore and Douglas E. Parsons. J. Research NBS 16, 265(1936).
RP887	5¢	Effects of partial prehydration and different curing temperatures on some of the properties of cement and concrete. F.E. Hornibrook, G.L. Kalousek, and C.H. Jumper. J. Research NBS 16, (1936).
RP970	5¢	Effect of temperature on the stress-deformation of concrete. Arthur J. Theuer. J. Research NBS 18, 195(1937).

CIRCULARS

Series	Price	
C304	20¢	Properties and manufacture of concrete building units. Cir. BS, C304 (1926).
C311	15¢	Stucco investigations at the Bureau of Standards with recommendations for portland cement stucco construction. Cir. BS, C311 (1926).

LETTER CIRCULARS

LC42	Free on application to Bureau	Acid-proof coatings for concrete surfaces. Let. Cir. BS, LC42 (Feb. 12, 1923).
LC139	"	Report of service tests on concrete floor treatments. Let. Cir. BS, LC139 (Oct. 28, 1920).

BUILDING AND HOUSING

BH9	O.P.	Recommended building code requirements for working stresses in building materials. BH9 (1926).

SIMPLIFIED PRACTICE RECOMMENDATIONS

R26-30	5¢	Steel reinforcing bars. Simpl. Prac. BS, R26-30 (1930).
R32-32*	5¢	Concrete building units (block, tile and brick). Simpl. Prac. BS, R32-32 (1932).
R87-32	5¢	Forms for concrete joist construction floors. Simpl. Prac. BS, R87-32 (1932).
R147-33	5¢	Wire diameters for mineral aggregate production screens. Simpl. Prac. BS, R147-33 (1933).
R163-36	5¢	Coarse aggregates (crushed stone, gravel, and slag). Simpl. Prac. NBS, R163-36 (1936).

* Under revision.

FEDERAL SPECIFICATIONS

The specifications listed below are issued by the Federal Specifications Executive Committee, Procurement Division, Federal Warehouse, Washington, D. C. Copies may be secured from the Superintendent of Documents, Government Printing Office, this city, at the prices indicated.

Series	Price	
RR-S-366	5¢	Sieves; standard testing.
SS-A-281	5¢	Aggregates.
SS-C-158	10¢	Cements, hydraulic, general specifications (methods for sampling, inspection and testing).
SS-C-181a	5¢	Cement; masonry.
SS-C-191a	5¢	Cement; portland.
SS-C-201	5¢	Cement; portland, high-early-strength.
SS-C-206	5¢	Cement; portland, moderate-heat-of-hardening.
SS-C-211	5¢	Cement; portland, sulphate-resisting.
SS-C-621	5¢	Concrete-Units; masonry, hollow.
SS-S-721	5¢	Cast stone.
WW-P-371	5¢	Pipe; concrete, plain.

ARTICLES PUBLISHED IN OUTSIDE JOURNALS

The articles indicated below are listed in chronological order. The name of the journal or of the organization publishing the article is given in abbreviated form, with address in parentheses, together with the volume number (underscored), page, and year of publication in the order named. These publications are not for distribution or sale by the Government, but may be consulted at most large libraries or in some cases may be purchased directly from the publishers.

The effect of high pressure steam on the crushing strength of portland cement mortar and concrete. R.J. Wig. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 260 South Broad St., Philadelphia, Pa.), 11, 580(1911); also Tech. Pap. BS, TS, 1, (1910-12).

Action of the salts in alkali water and sea water on cement. R.J. Wig and P.H. Bates. J. Franklin Inst. (Journal of the Franklin Institute, 20th & Parkway, Philadelphia, Pa.), 175, 65(1913); also Tech. Pap. BS, T12, 2, (1912-14).

Reinforced concrete slabs. W.A. Slater. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 260 South Broad St., Philadelphia, Pa.), 13, 874(1913).

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Properties of portland cement having a high MgO content. P.H. Bates. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 10, 470(1914).

Some further results obtained in investigations of the properties of portland cement having a high MgO content. P.H. Bates. Proc. Am. Concrete Inst., 11, (1915).

The effect of fine grinding and a higher SO_3 content upon the physical properties of portland cement. P.H. Bates. Proc. Am. Soc. Testing Materials, 15, Part II, 126(1915).

What is the trouble with concrete in seawater? R.J. Wig and Lewis R. Ferguson. Series of five articles in Eng. News-Record (McGraw-Hill Publishing Co., Inc., 330 West 42d St., New York, N.Y.), September 1917.

Tests of stucco. J.C. Pearson. Proc. Am. Concrete Inst., 14, 109(1918).

Fire tests of concrete columns. W.A. Hull. Proc. Am. Concrete Inst., 14, 138(1918).

Tentative report on design of reinforced gypsum. W.A. Slater. Proc. Am. Soc. Testing Materials, 19, Part II, 348(1919).

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Structural laboratory investigations in reinforced concrete made by Concrete Ship Section, Emergency Fleet Corporation. W.A. Slater. Proc. Am. Concrete Inst., 15, 24(1919).

Tests of concrete tanks for oil storage. J.C. Pearson and G.A. Smith. Proc. Am. Concrete Inst. (American Concrete Institute, 7400 Second Blvd., Detroit, Mich.), 15, 186(1919).

Tests of two recent theories for proportioning concrete. G.M. Williams and Watson Davis. Eng. News-Record (McGraw-Hill Publishing Co., Inc., 330 W. 42d St., New York, N.Y.), June 12, 1919; Subsequent discussions and contributions, Eng. News-Record, August 14, 1919 and April 22, 1920.

Tests of plain and reinforced gypsum beams. W.A. Slater and G.P. Anthos. J. Western Soc. Engrs. (Western Society of Engineers, 1121 Dobson St., Evanston, Illinois), September 1919.

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Some determinations of the stress deformation relations for concrete under repeated and continuous loadings. G.M. Williams. Proc. Am. Soc. Testing Materials (American Society for Testing Materials, 260 South Broad St., Philadelphia, Pa.), 20, Part II, 233(1920).

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Reinforcement for diagonal tension. W.A. Slater. Concrete, 17, August 1920.

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Effect of hydrated lime on the strength and flow of concrete. W.E. Emley. Proc. Am. Soc. Testing Materials, 22, Part II, 284(1922).

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Factors of workability of portland cement concrete. W.H. Herschel and E.A. Pisapia. Proc. Am. Concrete Inst., 32, 641(1936).

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